

Department of Land and Natural Resources

Sustainability Hotspot

1

UPPER WAIANAE VALLEY

~Island of Oahu~



Top to bottom: Punanaula *kalo loi* fed by spring *auwai* (irrigation ditch), walls of an historic house site, a view of the Waianae-Kai Forest Reserve.

Found throughout the Upper Waianae Valley are numerous historic sites and remnant native forest that is part of the Waianae-Kai Forest Reserve. A number of streams emerge from the mountain ridges onto the upper valley floor at the back of Waianae. Once, these streams and adjacent slopes were used for farming irrigated *kalo* (taro) and other dryland crops such as *uala* (sweet potato). Houses and religious structures -- including the large Punanaula Heiau -- were scattered among these farms. Nearby ridges and areas among the fields were green with native forest and other native plants. These resources are important educational and cultural resources for the community -- its school children and the community at large -- and they are in need of much better protection and management.

With depopulation in the 1800s and early 1900s, the farms and houses of the Upper Waianae Valley were abandoned -- although a few families still retain *kuleanas* (claims) and grants. Under pressure from changing use of the land, and fires, the native forest and plants have been displaced from much of the valley floor. Modern demands for water have altered stream flow over the last hundred years. The area, just under 3,000 acres in size, is primarily used today by hunters, groups gathering plants, the Board of Water Supply for wells, and Waianae High School for its Hawaiian Studies archaeology classes.

The historic sites include archaeological ruins of:

- *kalo loi* (irrigated taro terraces);
- dryland agricultural fields;
- houses and religious sites;
- traditional cultural places which include springs and *heiau*.

These sites cover much of the landscape near streams and on gradual slopes between streams. Although poorly mapped and documented and heavily overgrown with weeds, there is strong community interest in identifying and protecting these resources.

The Kaala Cultural Learning Center, a cultural education center for school children from the Waianae district, children of other areas of the islands and for the community at large, is recultivating once abandoned *kalo loi*. Waianae High School now has a year-round class in archaeology and Hawaiian culture working in this area. There is also a rising interest in protecting and restoring Punanaula Heiau and its adjacent spring and *kalo loi*.

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2

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Top to bottom: Members of Waianae High School Hawaiian Studies program prepare for a day's work, the walls of a descending *kalo loi*, Punanaula Heiau, DLNR's Historic Preservation Division conducts education efforts.

The native dryland forest is extremely limited here today, with the best surviving areas located in the Kumaipo, Hiu and Honua drainages. Other areas do have some surviving forest plants -- *kukui* (candlenut) groves along streams and stands of native plants. The local community gathers some of these native plants and there is hope that the forest will be expanded through reforestation efforts. The Kaala Cultural Learning Center, Waianae High School, and DLNR have been working together to promote growing of native seedlings.

The threat of damage by exotic plants (weeds, grasses, and trees) and fires is very real, however, and DLNR must improve documentation and protection of native forest remnants and plants in the valley.

Another of DLNR's major concerns for both the cultural and natural resources of this sustainability hotspot is maintenance of stream flow. Stream flow is currently extremely limited in Kumaipo Stream, and other streams may have flows reduced in modern times. If the native forest, plants and *kalo loi* are to be restored, stream flow is critical.

DLNR'S Sustainability Hotspot Team for the area:

Ross Cordy - Historic Preservation, Oahu, 587-0012;
Johnny Castillo - Conservation and Resources Enforcement;
John Dooling - Land Division;
Lenore Nakama - Water Commission;
Earl Pawn - Forestry and Wildlife;

is responsible for management of the Upper Waianae Valley.

DLNR's Vision for the Future and How to Attain It

In DLNR's future vision for the Upper Waianae Valley:

- the upper portions of Waianae Valley will be protected. This might involve expanding protection areas seaward, partly into Department of Agriculture lands;
- the valley will be managed under a plan largely developed by the interested community groups of Waianae and families with historic ties to this area of upper Waianae, in partnership with DLNR;

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3

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Top to bottom: View of Punanaula Heiau with Waianae in background; view towards rear of valley showing forest reserve, Punanaula *kalo loi*, Johnny Castillo, DOCARE representative on the Upper Waianae Hotspot Team.

■ historic sites would be surveyed, cleared, restored, interpreted and linked to other historic sites being preserved in the district of Waianae, so the history of this district can be passed on to future generations;

■ the area will be reforested and used for hunting, gathering of native plants, and other native Hawaiian cultural practices common to such upper valley contexts. This will require a botanical survey, weed control efforts and perhaps the establishment of a seedling nursery;

■ stream flow in the upper valley will be restored and maintained;

■ fire control measures (e.g., firebreaks, plantings) will be established to prevent the spread of wildfires into the upper valley and to protect the native trees and plants;

■ the presence of a *kahu* (guardian)/ranger will be established for this upper valley area, to better protect and maintain the resources. This would result in the creation of one job for the residents of the Waianae coast -- clearly an important need for this area of Oahu.

Implementation of DLNR's vision for the future would require funding of \$100,000 in the first year with additional funding for a *kahu* position and operating costs in successive years. 🌿



DLNR's Hotspot Team for the Upper Waianae Valley (l-r): Pawn, Cordy, Nakama, Dooling.